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Wolverine Range Woodland Caribou Inventory, February 1993

M. D. Wood
March 1993

PWFWCP Report No. 25

The Peace/Williston Fish & Wildlife Compensation Program is a cooperative venture of BC Hydro and the provincial fish and wildlife management agencies, supported by funding from BC Hydro. The Program was established to enhance and protect fish and wildlife resources affected by the construction of the W.A.C. Bennett and Peace Canyon dams on the Peace River, and the subsequent creation of the Williston and Dinosaur Reservoirs.

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Website: *www.bchydro.bc.ca/environment/initiatives/pwcp/*

This report has been approved by the Peace/Williston Fish and Wildlife Compensation Program Fish Technical Committee.

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WOLVERINE RANGE WOODLAND CARIBOU INVENTORY

FEBRUARY 18, 1993

INTRODUCTION:

A total count inventory of woodland caribou was attempted on February 18, 1993 on the Wolverine Mountain Range west of the Williston Reservoir. The survey was conducted with a Bell 206 helicopter chartered by Northern Mountain Helicopters from Mackenzie.

SURVEY CONDITIONS:

The survey commenced at 3:50 pm at the north end of the Wolverine Range, and ended at the south end at 5:25 pm. Although a total count was originally attempted, a number of ridges near the southern end were not surveyed as darkness and down time were fast approaching. The weather was a mix of sun and clouds, with some flurries in the mountains. The broken cloud ceiling was around 5000' to 6000'. The temperature was -12 degrees C, and winds were strong in the mountains (30-40 knots). Downdrafts prevailed. Snow coverage was about 80%, with depths ranging from 0 to 15 cm in the alpine; it had been a few weeks since the last snowfall.

METHODS:

The inventory method involved flying the alpine ridges and bowls of the Wolverine Range, using a helicopter and three-person crew. The two rear seat observers (Mari Wood, Wildlife Biologist, Williston Program, and Dennis Nesbitt, Mackenzie Forest Service) searched for, counted and classified animals. Mari also recorded all observations on the survey forms. The navigator (Fraser Corbould, Wildlife Biologist, Williston Program), also searched for and classified animals, and recorded the locations of animals seen on 1:250,000 topographic maps. Animals were classified as adult male, adult female, or calves. Caribou were classified using the vulval patch method. Each caribou was sexed from behind as they ran single file with their tails flagged. Female caribou exhibit a dark vulval patch, whereas the males do not. Antler development was not used to classify caribou.

RESULTS:

A total of 66 woodland caribou including 43 cows, 15 bulls and 8 calves, were observed on the survey (Table 1, Appendix A). No attempt was made to classify yearlings due to the waning daylight, thus yearlings and sub-adults were included with the cows and bulls, and yearling survivorship was not estimated. The cow/bull ratio was 35 bulls/100 cows; the cow/calf ratio was 19 calves/100 cows. Calf survival is relatively good. All caribou were observed on windswept slopes or ridges, and in upper alpine bowls. Since daylight restricted our survey and some ridges were missed, it is expected that

there were about 100 caribou on the Wolverine Range. Snow depths have been extremely low this year; radio-telemetry flights in January and February of this year have shown between 50% and 70% of radio-collared caribou in timbered habitats. This accounts for the relatively low number of caribou observed on the Wolverine Range during this survey.

RECOMMENDATIONS:

1. Continue monitoring of the radio-collared caribou by fixed-wing aircraft on a monthly basis throughout the year.

2. Increase monitoring intensity of radio-collared caribou during migration, calving and early winter periods.

3. Attempt a total count inventory of caribou on the Wolverine Range in February in the next couple of years, to compare numbers of caribou observed with that winter's snow conditions.

4. Conduct a calving survey on both the Wolverine and Nina Lake Ranges to determine calf production. This could then be compared with calf survival during the winter's total count surveys.

Table 1. Woodland caribou observed on February 1993 survey.

GROUP	MALE	FEMALE	CALF	TOTAL
1		1		1
2	1	3	1	5
3		2		2
4	3	9		12
5	4	10	2	16
6	2	1		3
7	3	7	3	13
g	1	8	2	11
9	1	2		3
TOTAL	15	43	8	66

WOODLAND CARIBOU SURVEY

Location _____ Area (km2) _____
Date _____ M.U. _____
Method _____
Observers _____
Start Time _____ End Time _____

Weather Conditions _____
Temperature (C) _____
Windspeed _____
Snow Conditions: Hrs since snow _____
Snow Depth (cm) _____
Snow Coverage (%) _____

Comments _____

Caribou Classification:

M	adult male	YRf	yearling female
F	adult female	YRm	yearling male
C	calf	YR	unclassified yearling
UA	unclassified adult	U	unclassified caribou

GROUP #	TOTAL IN GROUP	CARIBOU CLASSIFICATION	ELEV	COMMENTS
1	1	1F	5900'	
2	5	3F 1M 1C		
3	2	2F		
4	12	9F 3M		
5	16	10F 4M 2C		
6	3	1F 2M		
7	13?	7F 3M 3C		
8	11	8F 1M 2C		
9	3	2F 1M		

Feb 3/93
Tx = 1000 KS
Manuels River
Black Canyon
Strawberry Creek
Rocky
Strawberry River
Mountain
Creek
Trench
Mount Pollux
FINLAY
RANGES
Germansen Landing
Germansen Landing
Mansio Creek
Blackwater Mountain
Finish
CARIBOO LAND DISTRICT
PEACE RIVER LAND DISTRICT